

July 3, 1959

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Dear Joe:

I just wanted to bring to your attention this enclosed note by Schwartz and Dameshek which relates very closely to our previous discussions of screening for substances to modify the immunological response.

I might say that the selection theory of immunity, which by the way reached print in SCIENCE for June 19th, did receive a sympathetic reception wherever Burnet and I talked about it in Europe. I mention this because the theory gives so much more straightforward an explanation of Schwartz's results than the one he proposes in this note.

This report does substantiate our general feeling that we might very well find such effects among agents otherwise suitable for cancer chemotherapy. It is even possible that 6-mercapto purine will have some advantageous use in this way although one would certainly want to look for additional compounds of lower general toxicity, that is compounds with a more selective effect on the antibody-forming system. I would take this report as a strong encouragement to continue with this type of work. As an early step, it might well be worthwhile to see whether 6-mercapto purine will give a positive result in the screening methods that we had discussed earlier. Those methods might be much cheaper and more convenient than the ones used by Schwartz. There is one control missing in Schwartz's results that is the effect of mercaptopurine without the antigen at the same time. It is conceivable that he has induced not so much tolerance as a more generalized loss of the capacity to respond to a certain class of antigens without the antigen itself having played any role in the development of this nonreactivity. This is a little less likely in view of the distinctive results with globulin antigen but he still does not have as clean an experiment as one would like. I have heard by the grapevine that Ben Rubin has followed this experiment by successful skin transplantation but more work certainly has to be done in this area. It is quite likely that Nossal and I will be doing some experiments along these lines. However, these will be from the point of view of elucidating the mechanism of tolerance rather than screening for interesting reagents. If you do enlarge a screening program I think it is quite possible we might have some interesting possibilities for collaboration.

I don't have anything to add to the telephone conversation that we just completed and I am very much looking forward to seeing you again on your way through this fall.

As ever,